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ABSTRACT

Mothers of young children are at risk for depressive symptoms due to their gender and status as parents of young children. Accordingly, this study undertook to assess the prevalence of depressive symptoms in a sample of 196 mothers of 5- and 6-year-old children; to identify sociodemographic correlates of depressive symptoms among these women; and to determine if chronic stress is associated with depressive symptoms independent of other risk factors. In-home interviews were conducted with the participants using the Center for Epidemologic Studies--Depression Scale (CES-D) and the Everyday Stressors Index (ESI). High depressive symptoms were reported by 49 percent of the mothers. Depressive symptoms were highest among mothers who had never married, had less than a high school education, were under 25 years of age, were black, and had a low income. The ESI was a strong predictor of high depressive symptoms, controlling sociodemographic characteristics. Results suggest the importance of chronic, daily stressors as correlates of depressive symptoms in mothers of young children and also point to the need for multivariate models when examining predictors of depressive symptoms. Six pages of references are included. (Author/TE)

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PREVALENCE AND CORRELATES OF DEPRESSIVE SYMPTOMS IN MOTHERS OF YOUNG CHILDREN

RUNNING HEAD: MATERNAL DEPRESSIVE SYMPTOMS

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ABSTRACT

Mothers of young children are at risk for depressive symptoms due to their gender and status as parents of young children. The primary purposes of this study were: (1) to assess the prevalence of depressive symptoms in a sample of mothers with young children; (2) to identify sociodemographic correlates of depressive symptoms among the women; and (3) to determine if chronic stress is associated with depressive symptoms independent of other risk factors. In-home interviews were conducted with 196 mothers of 5- and 6-year-old children using the Center for Epidemiologic Studies--Depression Scale (CES-D) and the Everyday Stressors Index (ESI). High depressive symptoms (CES-D $\geq$ 16) were reported by 49% of the mothers. Depressive symptoms were highest among mothers who had never married, had less than a high school education, were under 25 years of age, were Black, and had a low income. The ESI was a strong predictor of high depressive symptoms, controlling sociodemographic characteristics. In comparison to mothers reporting a low level of everyday stressors (score = 5), mothers scoring 15 on the ESI were three times more likely to have high depressive symptoms; those scoring 35 were more than 30 times as likely to have high CES-D scores. The results suggest the importance of chronic, daily stressors as correlates of depressive symptoms in mothers of young children and also point to the need for multivariate models when examining predictors of depressive symptoms.

PREVALENCE AND CORRELATES OF DEPRESSIVE SYMPTOMS IN MOTHERS OF YOUNG CHILDREN

Mothers of young children constitute a group at risk for depressive symptoms due to their gender (Weissman & Klerman, 1977) and their status as parents of young children (Hall & Farel, 1988; Hall, Williams, & Greenberg, 1985). Previous studies have reported higher depressive symptoms among women, those with more children, young adults, the unmarried, those with low income, the poorly educated, and the unemployed (Bromet, Solomon, Dunn, & Nicklas, 1982; Eaton & Kessler, 1981; Kaplan, Roberts, Camacho, & Coyne, 1987). Yet, there is considerable inconsistency across studies in the correlates of depression in mothers with young children (Bromet & Cornely, 1984). In this study, the prevalence and correlates of depressive symptoms were examined in such a high risk sample.

The prevalence of high depressive symptoms among large community-dwelling samples of women ranged between 17% and 24% (Comstock & Helsing, 1976; Frerichs, Aneshensel, & Clark, 1981). In studies of non-clinical, community samples of mothers of young children conducted in the United States, the prevalence of depressive symptoms varied from as low as 12% (Bromet et al., 1982) using the Research Diagnostic Criteria (Endicott & Spitzer, 1978) to as high as 35% (Orr & James, 1984), 48% (Hall et al., 1985), and 57% (Hall & Farel, 1988) using the Center for Epidemiologic Studies--Depression (CES-D) Scale (Radloff, 1977). Similar findings were reported in studies conducted in the United Kingdom with a variety of measures of psychological/depressive symptoms. Prevalences ranging from 34% to 52% were found in samples of mothers with young children (Moss & Plewis, 1977; Richman, 1974, 1977, 1978). Because of their high prevalence and the likelihood of depressive symptoms to

persist (Bothwell & Weissman, 1977; Richman, Stevenson, & Graham, 1982; Wolkind, Zajicek, & Ghodsian, 1980), the implications for both mothers and their children are of special concern.

An understanding of the correlates of maternal depressive symptoms is important for several reasons. Maternal depression has been linked to a variety of maladaptive parenting behaviors. Clinically depressed mothers were described as unaffectionate, distant, irritable, and punative (Weissman & Paykel, 1974; Weissman, Paykel, & Klerman, 1972). Compared to nondepressed mothers, depressed mothers were more critical, angry, controlling, and demanding as well as less responsive (Belle, 1982; Webster-Stratton & Hammond, 1988). They also were reported to be more indifferent, resentful, and rejecting toward their children (Colletta, 1983; Weissman & Paykel, 1974).

Maternal depression also has been associated with adverse health outcomes for children. Childhood behavior problems (Fergusson, Horwood, & Shannon, 1984; Hall & Farel, 1988; Schaughency & Lahey, 1985), sleep disturbances (Richman, 1981), accidents (Brown & Davidson, 1978), and psychological disorders (Beardslee, Bemporad, Keller, & Klerman, 1983; Orvaschel, Walsh-Allis, & Ye, 1988; Weissman et al., 1984) were correlated with a variety of maternal psychological disturbances including depression.

The results of several studies suggest a link between maternal depression and abusive parenting behavior as well. The use of physical punishment was more prevalent among depressed mothers than among the nondepressed (Ghodsian, Zajicek, & Wolkind, 1984; Richman, 1978; Webster-Stratton & Hammond, 1988). Depressed mothers and abusive mothers were more inconsistent, overprotective, and hostile toward their children than control mothers and also used more anxiety and guilt-inducing discipline strategies (Susman, Trickett, Iannotti, Hollenbeck, & Zahn-Waxler, 1985). Abusive mothers were found to be more

depressed than control mothers (Lahey, Conger, Atkinson, & Treiber, 1984). In addition, higher depression scores were associated with fewer positive and more negative mother-child interactions (Lahey et al., 1984).

Although stressful life events have been consistently associated with psychological distress (Rabkin & Struening, 1976; Tennant, 1983), chronic life strains (Pearlin & Johnson, 1977; Pearlin & Lieberman, 1979) and everyday problems (Dean, Lin, & Ensel, 1981; Hall et al., 1985) or daily hassles (DeLongis, Coyne, Dakof, Folkman, & Lazarus, 1982; Kanner, Coyne, Schaefer, & Lazarus, 1981) have been implicated more strongly in the etiology of poor mental health. Chronic stressors related to finances, housing, parenting, and interpersonal relationships have been associated with depressive symptoms in mothers of young children (Belle, 1982; Hall et al., 1985; Richman et al., 1982).

Despite the fact that studies attest to the potential negative impact of maternal depressive symptoms on the mother-child relationship and child outcomes specifically, few researchers have investigated the prevalence and correlates of depressive symptoms among the mothers of young children. Moreover, few studies have examined daily stressors as potential correlates of depressive symptoms among these women. Thus, the purposes of this study were: (1) to assess the prevalence of depressive symptoms in a sample of mothers of 5- and 6-year-old children; (2) to identify sociodemographic correlates of depressive symptoms among the women; and (3) to determine if everyday stressors were associated with depressive symptoms, controlling for sociodemographic risk factors.

METHOD

Sample

Data for this cross-sectional investigation were collected during

1984-1985 as part of a study of the psychosocial, biomedical, and demographic correlates of home and school adaptation of 5- and 6-year-old children who weighed less than 2500 grams at birth. A review of birth certificates was conducted in 1983 to identify all children weighing less than 2,500 grams at birth in a selected North Carolina county during 1978 or 1979. The names of these children were matched with the 1983 and 1984 kindergarten enrollment rosters for the city and county school systems. Of the 612 matches on birth certificates and registrations, 200 (33%) mothers of these children were contacted and agreed to participate in the study; 10% were contacted but declined to participate; and the remaining 57% either could not be located or were not contacted because the sample size sought had been attained. Of the 200 mothers who participated, 196 women had complete sets of data and formed the study sample.

The mean age of the women was 30.1 years (SD = 5.4), and they had a mean of 12.4 years of education (SD = 2.3). Fifty-four percent were married, 22.5% were separated or divorced, 22.5% had never married; one mother was widowed. The majority of the women (64.5%) were employed. The racial composition of the sample was 56% Black and the remainder were White. Annual family income ranged from under $3,000 to over $30,000. Almost 50% of the sample reported an income of less than $10,000; 25% reported an income between $10,000-$20,000; and the remaining 25% had an income over $20,000 per year. Mothers had a mean of two children.

Measures

Everyday stressors. The Everyday Stressors Index (ESI) was used to measure the level of stress associated with problems commonly faced on a daily basis by mothers with young children (Hall, 1983). Included in the 20-item ESI are questions about financial concerns, role overload, parenting worries,

employment problems, and interpersonal conflict. Each respondent was asked to describe how much each problem worried, upset, or bothered her from day-to-day using a 4-point scale ranging from not at all bothered (0) to bothered a great deal (3). A cumulative ESI score was derived by summming the responses, with total scores ranging from 0 to 60.

In previous research on mothers of young children, the ESI demonstrated good internal consistency, with Cronbach's alphas of .83 (Hall et al., 1985) and .80 (Hall, 1987). For the present study, Cronbach's alpha was .85. In four samples of mothers with young children (N = 433), everyday stressors were empirically differentiated in factor analysis from measures of maternal depressive and psychosomatic symptoms, thereby supporting the construct validity of the ESI (Hall, 1987).

Depressive symptoms. The 20-item Center for Epidemiologic Studies--Depression Scale (CES-D; Radloff, 1977) was used to measure depressive symptoms. The scale assesses symptoms of depressed mood and psychophysiologic complaints that frequently accompany clinical depression. Mothers were asked to indicate how frequently they had experienced each symptom during the previous week on a 4-point scale, ranging from rarely or none of the time (0) to most or all of the time (3). The CES-D was scored by reversing the ratings for the four positive items and adding them to those of the other 16 items to form a summary score with a potential range of 0-60. Scores of 16 or above are indicative of "high depressive symptoms," but are not intended to connote a diagnosis of clinical depression (Berkman et al., 1986). This cutpoint corresponded to the 80th percentile of scores in community samples (Comstock & Helsing, 1976), and has been used extensively in other studies (Eaton & Kessler, 1981; Frerich, Aneshensel, & Clark, 1981; Hall & Farel 1988; Hall et al., 1985; Orr & James, 1984).

The CES-D has repeatedly demonstrated high internal consistency (Cronbach's alphas average between .86-.90) and good test-retest reliability (Comstock & Helsing, 1976; Radloff, 1977; Weissman, Sholmaskas, Pottenger, Prusoff, & Locke, 1977). In samples of mothers of young children, Cronbach's alphas ranged from .88 to .90 (Hall & Farel, 1988; Hall et al., 1985). Cronbach's alpha in the present sample was .90. The validity of the CES-D has been supported by substantial correlations with other self-report measures of depressive symptoms and with clinical ratings of depression (Myers & Weissman, 1980; Radloff, 1977; Weissman et al., 1977).

Sociodemographic characteristics. Data also were collected on the mother's age, race, income, employment status, marital status, and education. These variables have been demonstrated to be independent risk factors for high depressive symptoms in previous studies (Comstock & Helsing, 1976; Eaton & Kessler, 1981; Kaplan et al., 1987).

Procedure

Data on everyday stressors, depressive symptoms, and sociodemographic characteristics were collected concurrently using structured questionnaires, administered by college-educated interviewers who received intensive training in the interview procedures. Average time for interview completion was two hours.

Associations of the CES-D scores with each sociodemographic characteristic were examined using the χ^2 test of differences in proportions and Pearson's product-moment correlation, as appropriate. Logistic regression analysis using the LOGIST procedure (Harrell, 1980) of the Statistical Analysis System was used to model the probability of high depressive symptoms, with the CES-D scores treated as a dichotomous variable. Each sociodemographic characteristic was examined as a potential modifier of the relationship between everyday

stressors and depressive symptoms because of the findings of such interactions in previous research (Hall et al., 1985). This was done through the testing of cross-product terms (everyday stressors x sociodemographic characteristic) in mathematical modeling, while controlling all other sociodemographic characteristics. Odds ratios for high depressive symptoms were calculated from the logistic regression coefficients according to the formula specified by Kleinbaum, Kupper, and Morgenstern (1982): $OR=e^{\beta(X_1-X_2)}$, where ß is the regression coefficient of the exposure variable, X_0 is a value the predictor variable representing a favorable comparison level, and X_1 is a less favorable level of the exposure variable.

RESULTS

The mean CES-D score was 12.7 (SD = 9.8). Sixty-four mothers (49%) had CES-D scores of 16 or greater, indicating high depressive symptoms among a substantial proportion of the women. In Table 1, the prevalence of high depressive symptoms by sociodemographic characteristics of the mothers and the results of χ^2 tests for differences in proportions are presented. Age of the mother as a categorical variable was not associated with high depressive symptoms, but in correlational analysis with age as a continuous variable, there was a weak inverse association ($r = -.16$, $p = .03$). The lower the income, the higher the depressive symptoms as demonstrated both in χ^2 and correlational analyses ($r = -.39$, $p = .0001$). Neither employment status nor marital status was associated with high depressive symptoms. However, 53% of the "never married" reported high depressive symptoms. A significantly greater proportion of Black mothers in comparison to White mothers had high CES-D scores (41.2% vs. 21.4%). Educational achievement was negatively associated with depressive symptoms when treated as a categorical and as a continuous variable ($r = -.29$, $p = .0001$).

INSERT TABLE 1 ABOUT HERE

In logistic regression analyses, none of the interaction terms tested was significant at the .05 level. Therefore, a model was fitted in which CES-D scores were regressed onto sociodemographic characteristics and everyday stressors (see Table 2). Age was not incorporated in the model because of its strong correlation with income. With all other variables in the model controlled simultaneously, education was the only sociodemographic characteristic significantly associated with high depressive symptoms. However, everyday stressors made the largest and most significant contribution to the prediction of the probability of high depressive symptoms.

INSERT TABLE 2 ABOUT HERE

Odds ratios for high depressive symptoms at different levels of everday stressors were calculated based on the results of the logistic regression and are graphed in the Figure. In comparison to mothers reporting a low level of everyday stressors (score = 5), mothers scoring 15 on the ESI were three times more likely to have high depressive symptoms (OR = 3.15); those scoring 25 were 10 times more likely to report high CES-D scores (OR = 9.95); and those scoring 35 on the ESI were more than 30 times as likely to have CES-D scores of 16 or above (OR = 31.37). Thus, everyday stressors were strongly associated with the probability of high depressive symptoms, controlling for all sociodemographic characteristics included in the model.

INSERT FIGURE ABOUT HERE

Correlations of everyday stressor items with CES-D scores in their continuous form ranged from .24 to .47. While all associations were significant, those stressors most strongly correlated with depressive symptoms involved role overload, child-related worries, and problems with housing, interpersonal relationships, finances, and unemployment.

Controlling everyday stressors as well as income, race, employment status, and marital status, there was a significant inverse association between education and the likelihood of high depressive symptoms. In comparison to mothers with a high school education, women with a 10th grade education were almost twice as likely (OR = 1.85) to report high depressive symptoms, whereas mothers with only an eighth grade education were more than three times as likely to have high CES-D scores (OR = 3.42).

DISCUSSION

Consistent with previous studies of mothers with young children in the United States (Hall & Farel, 1988; Hall et al., 1985; Orr & James, 1984) and in the United Kingdom (Moss & Plewis, 1977; Richman, 1974, 1977, 1978), there was a high prevalence of depressive symptoms among the sample. The mean CES-D score of 12.7 was greater than the mean of 8.7 found in the 1974-75 Health and Nutrition Examination Survey among the general population (Sayetta & Johnson, 1980) and the mean of 9.9 among women in a community sample (Weissman et al., 1977). However, it was substantially lower than the means of 17.8 and 18.7 reported in other studies of low-income samples of mothers with young children (Hall et al., 1985; Hall & Farel, 1988). This likely is a reflection of the more heterogeneous nature of the socio-demographic characteristics of the present sample. As Garrison and Earls (1986) noted, the range of prevalence rates across studies of maternal depression is strongly influenced by sampling and methodological factors. The choice of measures of depression or depressive

symptoms has a major impact on the means and prevalences found in different studies.

As reported in other studies (Comstock & Helsing, 1976; Eaton & Kessler, 1981), younger age, less education, and unemployment were associated with high depressive symptoms. In contrast to the findings of others (Comstock & Helsing, 1976; Eaton & Kessler, 1981; Frerichs et al., 1981; Warheit, Holzer, & Schwab, 1973), income, marital status, and race were not. In bivariate analyses, the sociodemographic characteristics of income, race, and education were significantly associated with high CES-D scores. In the multivariate analysis, however, only education emerged as a significant predictor. This finding is consistent with those of Radloff (1975) and Warren and McEarchen (1983) and suggests the importance of examining the combined effects of risk factors in predicting the probability of high depressive symptoms. Warren and McEarchen (1983) proposed that the stronger effect of education relative to other sociodemographic characteristics may be a reflection of the fact that greater knowledge and skills associated with better education may increase coping ability as well as feelings of competence, mastery, and control.

Everyday stressors made a significant contribution to the prediction of high depressive symptoms beyond that accounted for by the sociodemographic characteristics. A strong relationship was evidenced by the substantial increase in the odds of high depressive symptoms as everyday stressors increased. Marital status did not modify the effect of everyday stressors on depressive symptoms as was found in a study of low-income mothers with 5- and 6-year-olds (Hall et al., 1985). In that study, everyday stressors were strongly associated with the probability of high depressive symptoms only among unmarried mothers. However, the association found in this study is consistent with those of others that investigated the relationships of

depressive or psychological symptoms with persistent life strains (Pearlin & Johnson, 1977; Pearlin & Lieberman, 1979), everyday problems (Dean et al., 1981), and daily hassles (DeLongis et al., 1982; Kanner et al., 1981). This finding also is compatible with that of Richman and colleagues (Richman et al., 1982) who reported that social stress, measured by the sum of acute life events and chronic stress-provoking conditions, was associated with depressive symptoms in mothers of young children. Parenting worries as well as problems with role overload, housing, inadequate income, and unemployment emerged as correlates of maternal depressive symptoms as has been previously reported (Belle, 1982; Hall et al., 1985; Moss & Plewis, 1977; Richman et al., 1982).

Several limitations of this study warrant consideration. First, data were self-reported as well as cross-sectional. The nonrandom sample of mothers who had given birth to a low birth weight infant five years earlier is clearly not representative of all mothers with children this age. The causal direction between everyday stressors and depressive symptoms cannot be determined. Chronic, daily stressors may lead to higher depressive symptoms, but the converse also may be true. Depressive symptoms may create stressors or increase the degree of stressfulness perceived by the mother. There also may be a tendency to report higher everyday stressors if one is depressed. The everyday stressors--depressive symptom relationship may reflect a predisposition to report many symptoms or negative feelings. A final limitation is associated with the measurement of everyday stressors and similar measures of chronic stress. Kasl (1984) has clearly addressed the methodological shortcomings of such scales.

Poor child outcomes have been correlated with maternal everyday stressors (Hall & Farel, 1988) and stress in the family environment (Billings & Moos, 1983; Hirsch, Moos, & Reischl, 1985). Hammen and her colleagues (Hammen,

Adrian, Gordon, Burge, & Jaenicke, 1987) found both maternal depressive symptoms and mothers' reports of chronic strains in the family to predict psychopathology in children. Their measure of chronic strains assessed roles conceptually similar to those measured by the Everyday Stressors Index (e.g., marital/social, employment, financial, and relationship strains). Further investigation of maternal everyday stressors is merited as they relate to maternal depressive symptoms and to child outcomes. Longitudinal studies are needed to investigate the relationship of maternal everyday stressors to the course of maternal depressive symptoms over time and to a variety of potentially detrimental outcomes for children. Such knowledge will be useful to health care professionals in planning preventive strategies to reduce the risk of adverse outcomes for both mothers and their children.

REFERENCES

Beardslee, W. R., Bemporad, J., Keller, M. B., & Klerman, G. L. (1983). Children of parents with major effective disorder: A review. American Journal of Psychiatry, 140, 825-832.

Belle, D. (Ed.). (1982). Lives in stress: Women and depression. Beverly Hills: Sage.

Berkman, L. F., Berkman, C. S., Kasl, S., Freeman, D. H., Leo, L., Ostfeld, A. M., Coroni-Huntley, J., & Brody, J. A. (1986). Depressive symptoms in relation to physical health and functioning in the elderly. American Journal of Epidemiology, 124, 372-388.

Billings, A., & Moos, R. (1983). Comparisons of children of depressed and nondepressed parents: A social-environmental perspective. Journal of Abnormal Child Psychology, 11(4), 463-486.

Bothwell, S., & Weissman, M. M. (1977). Social impairments four years after an acute depressive episode. American Journal of Orthopsychiatry, 47, 231-237.

Bromet, E., & Cornely, P. (1984). Correlates of depression in mothers of young children. Journal of the American Academy of Child Psychiatry, 23(3), 335-342.

Bromet, E., Solomon, Z., Dunn, L., & Nicklas, N. (1982). Affective disorder in mothers of young children. British Journal of Psychiatry, 140, 30-36.

Brown, G., & Davidson, S. (1978). Social class, psychiatric disorder of mother, and accidents to children. The Lancet, 1, 378-380.

Colletta, N. D. (1983). At risk for depression: A study of young mothers. Journal of Genetic Psychology, 142, 301-310.

Comstock, G., & Helsing, K. (1976). Symptoms of depression in two communities. Psychological Medicine, 6, 551-563.

Dean, A., Lin, N., & Ensel, W. M. (1981). The epidemiological significance of social support systems in depression. In R. G. Simmons (Ed.), Research in community and mental health (Vol. 2, pp. 77-109). Greenwich, CT: JAI Press.

DeLongis, A., Coyne, J. C., Dakof, G., Folkman, S., & Lazarus, R. S. (1982). Relationship of daily hassles, uplifts, and major life events to health status. Health Psychology, 1, 119-136.

Eaton, W., & Kessler, L. (1981). Rates of symptoms of depression in a national sample. American Journal of Epidemiology, 114(4), 528-538.

Endicott, J., & Spitzer, R. L. (1978). A diagnostic interview: The Schedule for Affective Disorders and Schizophrenia. Archives of General Psychiatry, 35, 837-844.

Fergusson, D. M., Horwood, L. J., & Shannon, F. T. (1984). Relationship of family life events, maternal depression, and child-rearing problems. Pediatrics, 73, 773-776.

Frerichs, R. R., Aneshensel, C. S., & Clark, V. A. (1981). Prevalence of depression in Los Angeles County. American Journal of Epidemiology, 113(6), 691-699.

Garrison, W. T., & Earls, F. J. (1986). Epidemiological perspectives on maternal depression and the young child. In E. Z. Tronick & T. Fields (Eds.), Maternal depression and infant disturbance: New directions for child development (No. 34, pp. 13-30). San Francisco: Jossey-Bass.

Ghodsian, M., Zajicek, E., & Wolkind, S. (1984). A longitudinal study of maternal depression and child behavior problems. Journal of Child Psychology and Psychiatry, 25(1), 91-109.

Hall, L. A. (1983). Social supports, everyday stressors, and maternal mental health. Doctoral dissertation, University of North Carolina, Chapel Hill.

Hall, L. A. (1987). Psychometric evaluation of the Everyday Stressors Index (ESI). Unpublished manuscript.

Hall, L. A., & Farel, A. M. (1988). Maternal stresses and depressive symptoms: Correlates of behavior problems in young children. Nursing Research, 37, 156-161.

Hall, L. A., Williams, C. A., & Greenberg, R. S. (1985). Supports, stressors, and depressive symptoms in low-income mothers of young children. American Journal of Public Health, 75, 518-522.

Hammen, C., Adrian, C., Gordon, D., Burge, D., & Jaenicke, C. (1987). Children of depressed mothers: Maternal strain and symptom predictors of dysfunction. Journal of Abnormal Psychology, 96, 190-198.

Harrel, F. (1980). LOGIST procedure. In P. S. Reinhardt (Ed.), SAS supplemental library user's guide (pp. 83-102). Cary, NC: SAS Institute.

Hirsch, B. J., Moos, R. H., & Reischel, T. M. (1985). Psychosocial adjustment of adolescent children of a depressed, arthritic, or normal parent. Journal of Abnormal Psychology, 94, 154-164.

Kanner, A., Coyner, J., Schaefer, C., & Lazarus, R. (1981). Comparison of two modes of stress measurement: Daily hassles and uplifts versus major life events. Journal of Behavioral Medicine, 4, 1-39.

Kaplan, G., Roberts, R., Camacho, T., & Coyne, J. (1987). Psychosocial predictors of depression. American Journal of Epidemiology, 125(2), 206-220.

Kasl, S. V. (1984). When to welcome a new measure. American Journal of Public Health, 74, 106-108.

Kleinbaum, D. G., Kupper, L. L., & Morgenstern, H. (1982). Epidemiologic research: Principles and quantitative methods. Belmont, CA: Lifetime Learning Publications.

Lahey, B., Conger, R., Atkeson, B., & Treiber, F. (1984). Parenting behavior and emotional status of physically abusive mothers. Journal of Consulting and Clinical Psychology, 52(6), 1062-1071.

Moss, P., & Plewis, I. (1977). Mental distress in mothers of pre-school children in Inner London. Psychological Medicine, 7, 641-652.

Myers, J. K., & Weissman, M. M. (1980). Use of a self-report symptom scale to detect depression in a community sample. American Journal of Psychiatry, 137(9), 1081-1084.

Orr, S., & James, S. (1984). Maternal depression in an urban pediatric practice: Implications for health care delivery. American Journal of Public Health, 74, 363-365.

Orvaschel, H., Walsh-Allis, G., & Ye, W. (1988). Psychopathology in children of parents with recurrent depression. Journal of Abnormal Child Psychology, 16(1), 17-28.

Pearlin, L. I., & Johnson, J. S. (1977). Marital status, life-strains, and depression. American Sociological Review, 42, 704-715.

Pearlin, L. I., & Lieberman, M. A. (1979). Social sources of emotional distress. In R. G. Simmons (Ed.), Research in community and mental health (Vol. 1, pp. 217-248). Greenwich, CT: JAI Press.

Rabkin, J. G., & Struening, E. L. (1976). Life events, stress, and illness. Science, 194, 1013-1020.

Radloff, L. S. (1975). Sex differences in depression: The effects of occupation and marital status. Sex Roles, 1(3), 249-265.

Radloff, L. (1977). The CES-D Scale: A self-report depression scale for research in the general population. Applied Psychological Measurement, 1(3), 385-401.

Richman, N. (1974). The effects of housing on pre-school children and their mothers. Developmental Medicine and Child Neurology, 16, 53-58.

Richman, N. (1977). Behaviour problems in pre-school children: Family and social factors. British Journal of Psychiatry, 131, 523-527.

Richman, N. (1978). Depression in mothers of young children. Journal of the Royal Society of Medicine, 71, 489-493.

Richman, N. (1981). A community survey of characteristics of one- to two-year-olds with sleep disruptions. Journal of the American Academy of Child Psychiatry, 20, 281-291.

Richman, N., Stevenson, J., & Graham, P. J. (1982). Preschool to school: A behavioral study. New York: Academic Press.

Sayetta, R. B., & Johnson, D. P. (1980). Basic data on depressive symptomatology. In Vital and Health Statistics, Series 11, No. 216. Data from the National Health Survey. United States 1974-75. U.S. Dept. of HEW, DHS, Office of Health Research, Statistics, and Technology, National Center for Health Statistics.

Schaughency, E., & Lahey, B. (1985). Mothers' and fathers' perceptions of child deviance: Roles of child behavior, parental depression, and marital satisfaction. Journal of Consulting and Clinical Psychology, 53, 718-723.

Susman, E. J., Trickett, P. K., Iannotti, R. J., Hollenbeck, B., & Zahn-Waxler, C. (1985). Child-rearing patterns in depressed, abusive, and normal mothers. American Journal of Orthopsychiatry, 55(2), 237-251.

Tennant, C. (1983). Life events and psychological morbidity: The evidence from prospective studies. Psychological Medicine, 13, 483-486.

Warheit, G. J., Holzer, C. E., & Schwab, J. J. (1973). An analysis of social class and racial differences in depressive symptomatology: A community study. Journal of Health and Social Behavior, 14, 291-299.

Warren, L. W., & McEachren, L. (1983). Psychosocial correlates of depressive symptomatology in adult women. Journal of Abnormal Psychology, 92(2), 151-160.

Webster-Stratton, C., & Hammond, M. (1988). Maternal depression and its relationship to life stress, perceptions of child behavior problems, parenting behaviors, and child conduct problems. Journal of Abnormal Child Psychology, 16(3), 299-315.

Weissman, M., & Klerman, G. (1977). Sex differences and the epidemiology of depression. Archives of General Psychiatry, 34, 98-111.

Weissman, M., & Paykel, E. (1974). The depressed woman. Chicago: The University of Chicago Press.

Weissman, M. M., Paykel, E. S., & Klerman, G. L. (1972). The depressed woman as a mother. Social Psychiatry, 7, 98-108.

Weissman, M. M., Prusoff, B. A., Gammon, G. D., Merikangas, K. R., Leckman, J. F., & Kidd, K. K. (1984). Psychopathology in the children (ages 6-18) of depressed and normal parents. Journal of the American Academy of Child Psychiatry, 23(1), 78-84.

Weissman, M. M., Sholomskas, D., Pottenger, M., Prusoff, B. A., & Locke, B. Z. (1977). Assessing depressive symptoms in five psychiatric populations: A validation study. American Journal of Epidemiology, 106(3), 203-214.

Wolkind, S. N., Zajicek, E., & Ghodsian, M. (1980). Continuities in maternal depression. International Journal of Family Psychiatry, 1, 167-181.

Table 1. Prevalence of High Depressive Symptoms (CES-D ≥ 16) By Selected Sociodemographic Characteristics Among Mothers of Young Children (N = 196)

Characteristics	n	Percent CES-D ≥ 16	Degrees of Freedom	χ^2
Age in years				
19 - 24	29	41.4		
25 - 29	65	30.8		
30 - 34	61	27.9		
35 - 39	35	34.3		
40+	9	33.3	4	1.8
Annual Family Income				
< $5,000	53	47.1		
$5,000 - $10,000	25	40.0		
$10,001 - $15,000	22	31.8		
$15,001 - $20,000	27	14.8		
> $20,000	69	26.1	4	9.5*
Employment Status				
Employed	127	33.8		
Unemployed	69	30.4	1	2.4
Marital Status				
Never Married	45	53.3		
Divorced/Separated	24	31.1		
Married	105	24.8		
Widowed	1	0	3	3.8
Race				
Black	112	41.2		
White	84	21.4	1	8.6*
Education in years				
< 10	9	77.8		
10 - 11	41	41.5		
12	90	34.4		
> 12	59	15.2	3	18.21*

* $p < .05$

Table 2. Logistic Regression of CES-D Scores on Everyday Stressors, Controlling Marital Status, Race, Income, Employment Status, and Education (N = 196)

Variable	Regression Coefficient (ß)	χ^2
Marital Status	- 0.2915	0.28
Race	- 0.4696	0.98
Income	0.1767	1.25
Employment Status	0.8037	3.39
Education	- 0.3071	8.91*
Everyday Stressors	0.1149	24.75**

* $p < .01$; ** $p < .0001$

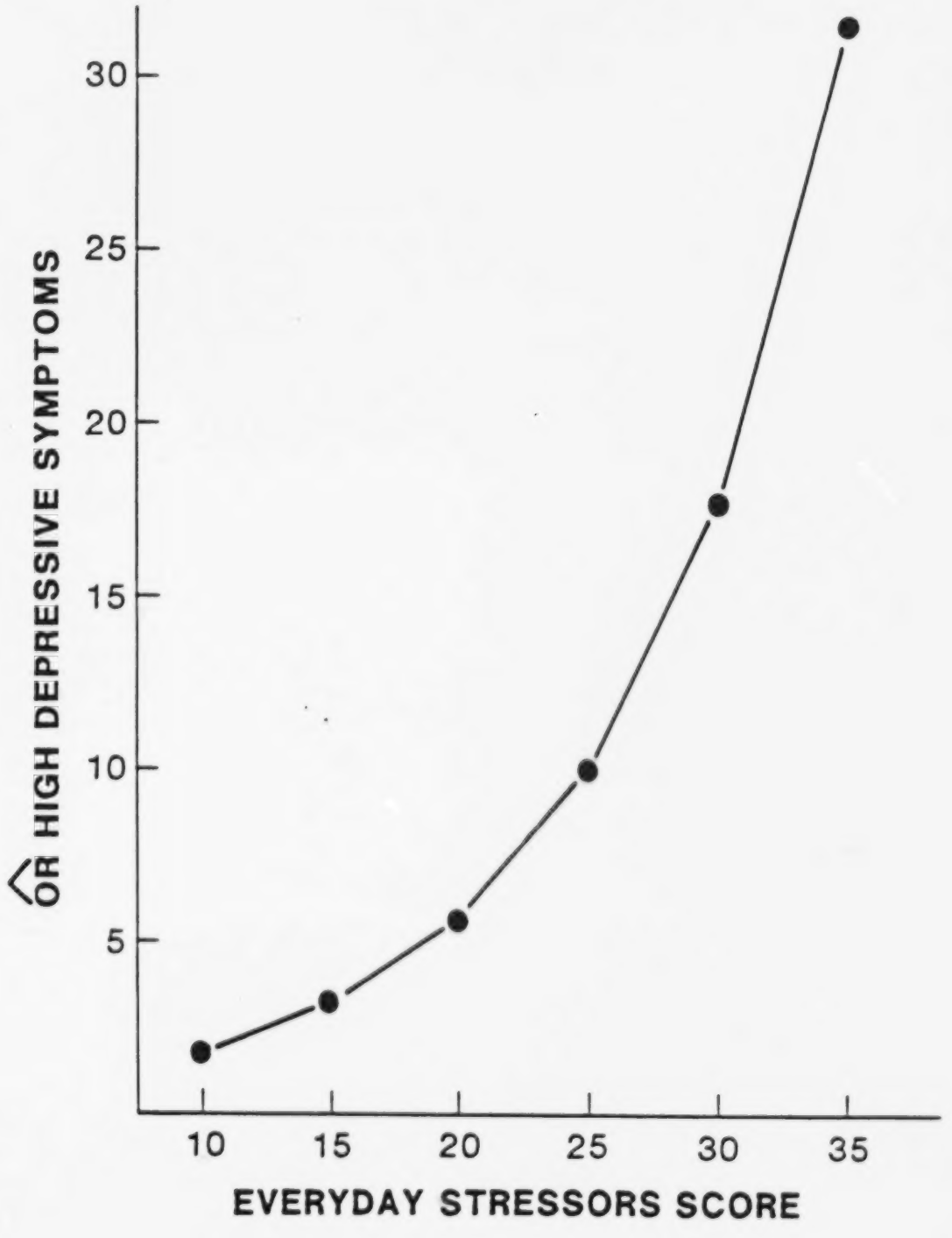

Figure. Estimated Odds Ratios of High Depressive Symptoms (CES-D ≥ 16) for Different Levels of Everyday Stressors (N=196).